
COVERING THE COVER

Immunoglobulin G4-related immune responses to common food antigens in patients with ulcerative colitis and Crohn's disease

Ulcerative colitis (UC) and Crohn's disease (CD) are two major immune-mediated entities of inflammatory bowel diseases (IBD) that could have relapse and remission periods. Both UC and CD occur after environmental triggers in genetically predisposed individuals. However, environmental triggers and immune system interactions are still complex and lesser known. Whether food antigens could be environmental triggers is still being investigated.

In this issue of the Turkish Journal of Gastroenterology, Lee and Lee investigated immunoglobulin (Ig) G4-related immune responses to common food antigens in patients with UC and CD. In this prospective control designed study, 36 patients with IBD (12 with CD; 24 with UC) and 36 age- and sex-matched healthy individuals (controls) were enrolled from March 2016 to October 2016. The researchers measured Ig G4 levels against 90 common food antigens in both patients and controls. Patients with IBD had higher levels of Ig G4 against salmon (0.07 ± 0.17 U/mL vs. 0; $p=0.025$) and onion (0.27 ± 0.41 U/mL vs. 0.08 ± 0.29 U/mL; $p=0.024$). The number of patients with positive Ig G4 levels to pineapple (16/36 vs. 8/36; $p=0.046$); oat (12/36 vs. 3/36; $p=0.009$); peanut (10/36 vs. 3/36; $p=0.032$); and coconut (4/36 vs. 0/36; $p=0.04$) was significantly higher in IBD group than healthy controls. Among patients with IBD, those with CD had more positivity to food antigens than those with UC.

This study demonstrates that, in patients with IBD, the immune system responses to food antigens could have a role in the etiology of IBD. Recent studies have suggested that an Ig G-guided exclusion diet ameliorates UC symptoms and improves quality of life of both patients with CD and UC. However, further investigations focusing on both the role of Ig G4 titers against food antigens in the etiology of IBD and Ig G-guided exclusion diets for patients with IBD are warranted. See page 408.

Serum miR-551b-3p is a potential diagnostic biomarker for gastric cancer

Gastric cancer (GC) is the second most common cause of cancer-related deaths worldwide, and in Turkey, it is the fourth most common cancer in men and the sixth most common cancer in women. Well-known risk fac-

tors of GC are *Helicobacter pylori*, diets poor in vegetables and fruits, diets high in salt; low socio-economic status, and smoking. miRNAs are approximately 18-24 nt non-coding RNAs. Recent studies have shown that these RNAs can be used to diagnose diseases and to monitor disease progression. miRNAs act on tissue-specific target messenger RNAs (mRNAs) and alter the expression levels of these mRNAs, resulting in cell proliferation, apoptosis, differentiation, cellular response, viral infection, and tumorigenesis. miRNAs can also act on tumor suppression and exhibit oncogenic properties, similar to those exhibited by mRNAs. Given that circulating miRNAs are protected from RNase-mediated degradation, they are nominated as non-invasive biomarkers in the diagnosis of many diseases.

In this issue of the Turkish Journal of Gastroenterology, Bai et al. have studied serum miR-551b-3p as a potential diagnostic biomarker for GC. The researchers collected 103 venous blood samples from 50 patients with GC (GC group) and 53 healthy controls and found that the serum levels of miR-551b-3p were significantly lower in the GC group than in the healthy controls ($p=0.000$). The serum levels of miR-551b-3p correlated with tumor size ($p=0.014$), depth of invasion ($p=0.001$), and tumor-node-metastasis (TNM) stage ($p=0.022$). The area under the ROC curve for diagnostic accuracy of serum miR-551b-3p as a GC biomarker was 0.860 (95% CI: 0.787-0.933, $p=0.000$), with 70% sensitivity and 96.2% specificity. The cut-off point of miR-551b-3p was obtained as 0.0175.

In the era of insufficient tumor markers for GC, miR-551b-3p could be a potential biomarker for GC, and the results of this trial could be promising. However, these results need to be confirmed with prospective, multi-center studies involving a large sample size. See page 415.

Percutaneous microwave ablation for HCV-related hepatocellular carcinoma: Efficacy, safety, and survival

Currently, hepatitis C (HCV) has become a curable disease since direct-acting antivirals have become accessible. The eradication of HCV until 2030 is a global project of World Health Organization, the American Disease Control and Prevention Center, the Coalition of Viral Hepatitis Elimination, and the European Association of Liver Patients. However, even after the eradication of HCV, the risk of hepatocellular carcinoma (HCC) is persistent, especially in patients with advanced liver cir-

rhosis. HCC could be intervened by operations [such as liver transplantation (LT) and resection], radiofrequency ablation, transarterial chemoembolization (TACE), transarterial radioembolization (TARE), or chemotherapeutic agents according to patients' performance status, liver insufficiency, and tumor features.

In this issue of the Turkish Journal of Gastroenterology, Darweesh and Gad investigated the efficacy and safety of percutaneous microwave ablation (MWA) for HCV-related HCC (≤ 5 cm) in patients with early-stage liver diseases (MELD score < 14 ; Child-Pugh A and B) and evaluated patient survival. In this prospective study, 59 patients with HCV-related HCC were treated. Complete ablation was achieved in 96.6% (57/59) of the patients. The overall median survival rate was 31 months after initiation of the MWA procedure. The most common side effect during this procedure was abdominal pain (67.7%), which was treated by analgesics.

MWA seems to be a promising technique for patients with HCV-related HCC; however, patients with HCC of > 5 cm were not intervened by this technique; therefore, this issue needs to be enlightened and investigated further. See page 445.

Revisiting long-term prognostic factors of biliary atresia: A 20-year experience with 81 patients from a single center

Biliary atresia (BA) is the most important cause of neonatal cholestasis and the most common cause of LT in children. It should be excluded in the presence of

prolonged jaundice with acholic stools and dark urine. Although the incidence of BA varies according to geographic regions, its estimated incidence is 1 in 5000-18000 live births. It is most common in Asia, followed by North America and Europe. Our knowledge regarding the incidence and prevalence of BA in Turkey is insufficient; however, this incidence has been evaluated in Asia and Europe. The current recommended treatment of BA is Kasai hepatopertoenterostomy. In case Kasai hepatopertoenterostomy is insufficient, LT is indicated.

In this issue of the Turkish Journal of Gastroenterology, Hanalioglu et al. have presented a 20-year experience with 81 patients with BA from one of the most large-volume pediatric clinics in Turkey. Among the 81 patients with BA (49 male; 32 female), 78 were operated at the same center. The surgical success rate was 64.8%, and the perioperative mortality was 5.1%. In case of surgical failure or complications related to liver cirrhosis, living-related LT was performed on 10 patients (M:F=7:3) aged 0.8-14.2 years. The only predictor for success of surgery was younger age at diagnosis and surgery. For overall survival and survival with naive liver, the independent risk factors were prothrombin time at admission, liver histology, and success of surgery.

BA remains a diagnostic challenge in Turkey. Considering that diagnosis and treatment prior to the first 60 days of life is crucial, BA should be considered in the presence of prolonged jaundice, and patients should be referred to experienced surgical centers. See page 467.